

BBRS Official Interpretation No. 2015_01

Date: November 10, 2015
Subject: Utility-Sponsored and/or Other-Provided Minor Energy Efficiency Upgrades to Existing 1 – 4 unit Homes

Background/Discussion:

In Massachusetts, historically and currently, Utility-sponsored (Program Administrator*-sponsored) building energy efficiency upgrade Programs (energy audits, increased insulation levels, air sealing, efficient lighting, automatic thermostats, etc.) have been offered to the citizenry.

*Program Administrators in MA consist of Investor-owned Gas and Electric Utilities and the Cape Light Compact.

Even where Utility-sponsored energy efficiency upgrade programs are not available or utilized, it is not uncommon for the citizenry to simply choose to improve the energy efficiency (increased insulation, etc.) of their buildings on a voluntary basis.

Where essentially no construction, reconstruction or alteration is taking place but, say additional insulation is simply placed in an unconditioned attic space, several questions that arise include: (1) “Does 780 CMR regulate such events”? and; (2) “Under such circumstances, what minimum R-value of insulation is required placed in the attic”?

To answer such questions and others that arise, it is first necessary to identify governing 780 CMR regulations as discussed below.

Except those communities utilizing the MA Stretch Energy Code, the International Code Council International Energy Conservation Code-2012 (ICC IECC-2012) w/some MA amendments, represents the baseline energy conservation code currently utilized in MA (see the 8th Edition of 780 CMR, One- and Two-Family Dwelling Code, Chapter 11, Section N1101.2 and the MA Base Code – “commercial code” - Chapter 13, Section 1301.1.1 where reference to the MA-amended ICC IECC-2012 is made).

For so-called Stretch Energy communities, such communities have opted to adopt the current Stretch Energy Code (see the 8th Edition of 780 CMR, Appendix 115.AA and previously-issued BBRS Official Interpretation 2014_04 found on the DPS website).

MA-amended IECC-2012 forms the basis of the current baseline energy code and MA-amended IECC-2009 forms the basis of the MA Stretch Energy Code.

In both IECC-2012 and IECC-2009, Chapter 1, Section 101.4.3 sets requirements for when additions, alterations, renovations or repairs require conformance to the new construction requirements of the IECC but IECC-2012 and 2009, Section 101.4.3 also contain EXCEPTIONS allowing less than or other than conformance to the Code for new construction.

QUESTION 1: Where a building owner seeks to take advantage of a Utility-sponsored (Program Administrator-sponsored) building energy efficiency upgrade Program (energy audits, increased

insulation levels, air sealing, efficient lighting, automatic thermostats, etc.), is a Building Permit required for such work?

ANSWER 1: For energy audits, increased insulation levels, air sealing, efficient lighting, automatic thermostats, etc. but where no real construction or reconstruction of the building is involved, no Building Permit is required.

QUESTION 2: Where no Utility-sponsored (Program Administrator-sponsored) building energy efficiency upgrade Program is being utilized and where no real construction or reconstruction of the building is involved but the Home Owner simply voluntarily chooses to incorporate energy efficiency upgrades (increased insulation levels, air sealing, efficient lighting, automatic thermostats, etc.), is a Building Permit required for such work?

Answer 2: See Answer 1 above.

QUESTION 3: IECC-2012 and IECC-2009, Section 101.4.3 (in the case of the IECC-2012, Section C101.4.3 and R101.4.3 exist) all read the same and require that for additions, alterations, renovations or repairs to a building system, that such system be brought up to the Code for new construction. But EXCEPTION 3 to 101.4.3 reads: *“Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation”*.

Where no additions, no alterations (other than adding insulation), renovations or repairs occur, and either via a Utility-sponsored (Program Administrator-sponsored) or Building Owner voluntary upgrade, attic insulation is proposed increased, what is the required R-value increase required?

ANSWER 3: In recognition of the fact that such an attic insulation upgrade is strictly voluntary and no Building Permit is required (see Q & A # 1 and 2 above), and recognizing that any insulation addition is an improvement over existing conditions, the BBRS chooses to interpret IECC-2012 and 2009, Chapter 1, Section 101.4.3, Exception 3 as allowing any additional insulation of any R-value, provided that, as a minimum, floor cavities in the attic, if exposed, are filled per Exception 3.

Although the Code for new construction requirement for attic insulation in new construction, additions, and renovations would otherwise require that attic insulation be brought up to R-49 in Zone 5 (MA), where no true construction/reconstruction or addition is ongoing, then assuring that the attic floor cavity is simply filled w/insulation of any R value, per Exception 3 to 101.4.3, is acceptable.

NOTE: This interpretation was approved, unanimously, at the BBRS meeting on November 10, 2015.